BRUHAT BANGALORE MAHANAGARA PALIKE

Name of work:Modified Estimate ForAsphalting to roads at Sai Archade,G Ramaiah, and surrounding areas in ward no -03 Yelahanka Satellite Town sub Division

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
1	KSRRB 300-1. Earth work excavation by manual means in Ordinary Soil soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specifications								
	For RCC Drain	Cum							
	G Ramaiah Layout								
	1st Cross Rd		2	79.80	1.10	1.00	175.45		
	2nd Cross Rd		2	103.20	1.10	1.00	227.04		
	3rd Cross Rd		2	133.00	1.10	1.00	292.60		
	4th Cross Rd		2	132.95	1.10	1.00	292.49		
	4th A Cross Rd		2	23.75	1.10	1.00	52.25		
	4th B Cross Rd		2	45.75	1.10	1.00	100.65		
	DRAIN DESILTING								
	G Ramaiah Layout								
	1st Cross Rd		2	41.70	0.57	0.40	18.97		
	2nd Cross Rd		2	25.70	0.54	0.35	9.82		
	3rd Cross Rd		1	19.00	0.54	0.30	3.08		
	4th Cross Rd		2	17.75	0.54	0.33	6.39		
	Sai Archade								
	2nd Main Sai Orchid Rd		2	103.40	1.10	1.00	227.48		
	3rd Cross Rd		1	72.30	1.10	1.00	79.53		
	1st B Cross Rd		1	11.90	1.10	1.00	13.04		
	Debris		8	7.00	7.14	0.30	119.95		
	Culvert /								
			3	6.40	1.40	1.00	26.91		
							1645.65		
			Upto 125%				1473.01	211.79	311968.52
			Above 125%				172.64	211.79	36563.37
		Approved Amount			211.79				
2	Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour, HOM complete as per specifications.								
	For RCC Drain	Cum							
	G Ramaiah Layout								
	1st Cross Rd		2	79.80	1.10	0.15	26.32		
	2nd Cross Rd		2	103.20	1.10	0.15	34.06		
	3rd Cross Rd		2	133.00	1.10	0.15	43.89		
	4th Cross Rd		2	132.95	1.10	0.15	43.87		
	4th A Cross Rd		2	23.75	1.10	0.15	7.84		
	4th B Cross Rd		2	45.75	1.10	0.15	15.10		
	DRAIN Bottom								
	G Ramaiah Layout								
	1st Cross Rd		2	41.70	0.57	0.15	7.13		
	2nd Cross Rd		2	25.70	0.54	0.15	4.16		
	3rd Cross Rd		1	19.00	0.54	0.15	1.54		
	4th Cross Rd		2	17.75	0.53	0.15	2.82		
	Sai Archade								

	2nd Main Sai Orchid Rd		2	103.40	1.10	0.15	34.03		
	3rd Cross Rd		1	72.30	1.10	0.15	11.93		
	1st B Cross Rd		1	11.80	1.10	0.15	1.94		
	Culvert								
			3	6.40	1.40	0.15	4.02		
	For Kerb	Nos							
	G Ramaiah Layout								
	1st Cross Road		2	99.10	0.20	0.10	3.96		
	2nd Cross Road		2	108.00	0.20	0.10	4.32		
	3rd Cross Road		2	142.00	0.20	0.10	5.68		
	4th Cross Road		2	135.00	0.20	0.10	5.40		
	4th A Cross Road		2	23.00	0.20	0.10	0.92		
	4th B Cross Road		2	45.70	0.20	0.10	1.83		
	Subash Chandra Bose Layout, Sai Nagar								
	5th Cross		2	115.00	0.20	0.10	4.60		
	6th Cross		2	125.00	0.20	0.10	5.00		
	3rd Cross Road BHEL Layout		1	120.00	0.20	0.10	2.40		
	Subash Chandra Bose Layout, Sai Nagar Main Road		1	30.00	0.20	0.10	0.60		
	2nd Main Sai Orchid Rd		2	103.40	0.20	0.10	4.14		
			1	72.30	0.20	0.10	1.45		
			1	12.00	0.20	0.10	0.24		
							279.18		
			Upto 125%				276.66	4479.56	1239312.27
			Above 125%				2.52	4479.56	11271.70
		Approved Amount		4479.56					
3	Providing and laying in position plain cement concrete of mix M20 withOPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @0.43cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc, complete excluding cost of stell as per MORTH specification NO. 1500, 1700, 2200. Including cost of materials, labour, HOM complete as per								
	For RCC Drain	Cum							
	Drain Raft								
	G Ramaiah Layout								
	1st Cross Rd		2	79.80	0.90	0.15	21.55		
	2nd Cross Rd		2	103.20	0.90	0.15	27.86		
	3rd Cross Rd		2	133.00	0.90	0.15	35.91		
	4th Cross Rd		2	132.95	0.90	0.15	35.90		
	4th A Cross Rd		2	23.75	0.90	0.15	6.41		
	4th B Cross Rd		2	45.75	0.90	0.15	12.35		
	Sai Archade								
	2nd Main Sai Orchid Rd		2	103.40	0.90	0.15	27.92		
	3rd Cross Rd		1	72.30	0.90	0.15	9.76		
	1st B Cross Rd		1	11.80	0.90	0.15	1.59		
	Drain Wall								
	G Ramaiah Layout								
	1st Cross Rd		4	79.80	0.15	0.60	28.73		
	2nd Cross Rd		4	103.20	0.15	0.60	37.15		
	3rd Cross Rd		4	133.00	0.15	0.59	47.08		
	4th Cross Rd		4	132.95	0.15	0.59	46.67		
	4th A Cross Rd		4	23.75	0.15	0.60	8.55		
	4th B Cross Rd		4	45.75	0.15	0.58	15.92		
	Sai Archade								

	2nd Main Sai Orchid Rd		4	103.40	0.15	0.60	37.22		
	3rd Cross Rd		2	72.30	0.15	0.60	13.01		
	1st B Cross Rd		2	11.80	0.15	0.60	2.12		
							415.71		
	For RCC Culvert								
	Raft		3	6.40	1.20	0.20	4.61		
	side walls		6	6.40	0.23	0.54	4.73		
							9.34		
					Net Qty.		425.06		
			Upto 125%				405.10	7070.20	2864138.02
			Above 125%				19.96	7070.20	141088.68
		Approved Amount		7070.20					
4	KSRRB - M2300-14: Providing **TMT steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500.								
	Considering steel For Drain @ 60kg / cum	Tonne		415.71	0.060	--	23.64		
	Considering steel For Culvert @ 90 kg / cum			9.34	0.090	--	0.84		
							24.48		
			Upto 125%				22.69	72326.98	1640780.94
			Above 125%				1.79	72326.98	129793.22
		Approved Amount		72326.98					
5	**Removing & Refixing stone slabs** of drains and pointing in C.M (1:3)								
	G Ramaiah Layout								
	1st Cross Road		2	52.20	0.90		93.96		
	2nd Cross Road		2	38.60	0.90		69.48		
	3rd Cross Road		2	32.00	0.90		57.41		
	4th Cross Road		2	9.00	0.90		16.20		
	4th A Cross Road		2	12.00	0.90		21.48		
	4th B Cross Road		1	14.00	0.90		12.60		
							271.13	111.30	30176.55
		Approved Amount		111.30					
6	Providing and Fixing **pre cast covering Slab made out of CC 1:2:4** with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete.								
	For drain cover slab	Sqm							
	G Ramaiah Layout								
	1st Cross Rd		2	79.80	0.90		143.64		
	2nd Cross Rd		2	103.20	0.90		185.76		
	3rd Cross Rd		2	133.00	0.90		239.40		
	4th Cross Rd		2	132.95	0.90		239.31		
	4th A Cross Rd		2	23.75	0.90		42.75		
	4th B Cross Rd		2	45.75	0.90		82.35		
	Deduct in Front Of House		-1	166.00	0.90		-149.40		
	Sai Archade								
	2nd Main Sai Orchid Rd		2	103.40	0.90		185.48		
	3rd Cross Rd		1	72.30	0.90		65.07		
	1st B Cross Rd		1	11.78	0.90		10.54		
							1044.90		

		Upto 125%				978.98	2337.00	2287864.58
		Above 125%				65.93	2337.00	154071.45
9	Approved Amount	2337.00						
	Providining & fixing precaste solid concrete kerb stones of size 450X200X400mm maid out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete.							
	For Kerb	Nos						
	G Ramaiah Layout							
	1st Cross Road		2	99.10			198.20	
	2nd Cross Road		2	108.00			216.00	
	3rd Cross Road		2	142.00			284.00	
	4th Cross Road		2	135.00			270.00	
	4th A Cross Road		2	23.00			46.00	
	4th B Cross Road		2	45.70			91.40	
	Subash Chandra Bose Layout, Sai Nagar							
	5th Cross		2	115.00			230.00	
	6th Cross		2	125.00			250.00	
	3rd Cross Road BHEL Layout		1	120.00			120.00	
	Subash Chandra Bose Layout, Sai Nagar Main Road		1	30.00			30.00	
	2nd Main Sai Orchid Rd		2	103.40			206.80	
	3rd Cross Rd		1	72.30			72.30	
	1st B Cross Rd		1	11.80			11.80	
							2026.50	
							4504.00	477.00 2148408.00
		Approved Amount		477.00				
8	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications							
	For Kerb	Nos						
	G Ramaiah Layout							
	1st Cross Road		2	99.10		0.40	79.28	
	2nd Cross Road		2	108.00		0.40	86.40	
	3rd Cross Road		2	142.00		0.40	113.60	
	4th Cross Road		2	135.00		0.40	108.00	
	4th A Cross Road		2	23.00		0.40	18.40	
	4th B Cross Road		2	45.70		0.40	36.56	
	Subash Chandra Bose Layout, Sai Nagar							
	5th Cross		2	115.00		0.40	92.00	
	6th Cross		2	125.00		0.40	100.00	
	3rd Cross Road BHEL Layout		1	120.00		0.40	48.00	
	Subash Chandra Bose Layout, Sai Nagar Main Road		1	30.00		0.40	12.00	
			1	30.00		0.40	12.00	
	Missing Kerb		1	44.00		0.40	17.38	
	2nd Main Sai Orchid Rd		2	103.40		0.30	62.04	
	3rd Cross Rd		1	72.30		0.30	21.69	
	1st B Cross Rd		1	11.80		0.30	3.54	
							810.89	84.80 68763.47
		Approved Amount		84.80				

9	**Excavation for road work** in all type of soil by mechanical means including cutting loading to tippers trimming bottom and side slopes in accordance with requirment of lines and cross sections and transportation with a lead of 1.00 km and complete as per specification.								
	Asphalt Rdoad	Cum							
	2nd Main Sai Orchid Rd		1	148.60	6.49	0.30	289.54		
	3rd Cross Rd		1	110.00	7.06	0.30	232.87		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40	0.30	178.05		
	1st Cross Rd sai orchid Rd		1	110.10	7.06	0.30	233.09		
	1st Main Sai Orchid Rd		1	84.00	7.20	0.30	181.44		
	CC Road								
	1st A Cross Rd		1	38.00	4.45	0.30	50.73		
	1st B Cross Rd		1	36.00	4.73	0.30	51.29		
							1217.01	57.03	**69403.93**
		Approved Amount			**57.03**				
10	**Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.								
	Asphalt Rdoad	Sqm							
	2nd Main Sai Orchid Rd		1	148.60	6.49		965.13		
	3rd Cross Rd		1	110.00	7.06		776.25		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40		593.51		
	1st Cross Rd sai orchid Rd		1	110.10	7.06		776.97		
	1st Main Sai Orchid Rd		1	84.00	7.20		604.80		
	CC Road								
	1st A Cross Rd		1	38.00	4.45		169.10		
	1st B Cross Rd		1	36.00	4.73		170.40		
							4056.15	6.36	**25797.10**
		Approved Amount			**6.36**				
11	Construction of **granular sub-base Grading-V as Sub-base** and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density,								
	Asphalt Rdoad	Cum							
	2nd Main Sai Orchid Rd		1	148.60	6.49	0.15	144.77		
	3rd Cross Rd		1	110.00	7.06	0.15	116.44		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40	0.15	89.03		
	1st Cross Rd sai orchid Rd		1	110.10	7.06	0.15	116.54		
	1st Main Sai Orchid Rd		1	84.00	7.20	0.15	90.72		
							557.50	1855.00	**1034156.77**
		Approved Amount			**1855.00**				
12	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to								
	Asphalt Rdoad	Sqm							
	2nd Main Sai Orchid Rd		1	148.60	6.49	0.225	217.15		
	3rd Cross Rd		1	110.00	7.06	0.225	174.66		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40	0.225	133.54		
	1st Cross Rd sai orchid Rd		1	110.10	7.06	0.225	174.82		
	1st Main Sai Orchid Rd		1	84.00	7.20	0.225	136.08		

	CC Road								
	1st A Cross Rd		1	38.00	4.45	0.225	38.05		
	1st B Cross Rd		1	36.00	4.73	0.225	38.34		
							912.63	2001.28	1826434.98
		Approved Amount			2001.28				
13	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								
	Asphalt Rdoad	Cum							
	2nd Main Sai Orchid Rd		1	148.60	6.49		965.13		
	3rd Cross Rd		1	110.00	7.06		776.25		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40		593.51		
	1st Cross Rd sai orchid Rd		1	110.10	7.06		776.97		
	1st Main Sai Orchid Rd		1	84.00	7.20		604.80		
							3716.65	33.92	126068.63
		Approved Amount			33.92				
14	Providing and applying tack coat using 80/100 grade Sqm bitumen(VGIO) in boiler fitted with spray set distributor at the rate of 0.25 kg per Sqm on the existing prepared bituminous surface cleaned with mechanical broom, complete as per specifications.								
	Asphalt Rdoad	Cum							
	2nd Main Sai Orchid Rd		1	148.60	6.49		965.13		
	3rd Cross Rd		1	110.00	7.06		776.25		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40		593.51		
	1st Cross Rd sai orchid Rd		1	110.10	7.06		776.97		
	1st Main Sai Orchid Rd		1	84.00	7.20		604.80		
							3716.65	12.72	47275.74
		Approved Amount			12.72				
15	Providing and laying bituminous macadam on Prepared Surface with crushed Coarse aggregates as per Design mix formulae for base/binding course including loading of aggregates with F.E loader,Hot mixing of Stone aggregates and bitumen in Hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve desired density, but excluding cost of primer/Tack coat including lead, lift and cost								
	Asphalt Rdoad	Cum							
	2nd Main Sai Orchid Rd		1	148.60	6.49	0.05	48.26		
	3rd Cross Rd		1	110.00	7.06	0.05	38.81		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40	0.05	29.68		
	1st Cross Rd sai orchid Rd		1	110.10	7.06	0.05	38.85		
	1st Main Sai Orchid Rd		1	84.00	7.20	0.05	30.24		
							185.83	5962.50	1108025.11
		Approved Amount			5962.50				
16	providing and laying bituminous concrete 40mm thick with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem roller to achieve the desire								
	Asphalt Rdoad	Cum							
	2nd Main Sai Orchid Rd		1	148.60	6.49	0.04	38.61		
	3rd Cross Rd		1	110.00	7.06	0.04	31.05		
	2nd Cross Rd (from 1st main sai orchid Rd)		1	110.00	5.40	0.04	23.74		

	1st Cross Rd sai orchid Rd		1	110.10	7.06	0.04	31.08		
	1st Main Sai Orchid Rd		1	84.00	7.20	0.04	24.19		
							148.67	8622.04	1281802.84
		Approved Amount			8622.04				
17	Providing and laying of **hot applied thermoplastic compound** 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.								
	Asphalt Rdoad	Cum					29.72		
	2nd Main Sai Orchid Rd		2	148.60	0.10		22.00		
	3rd Cross Rd		2	110.00	0.10		22.00		
	2nd Cross Rd (from 1st main sai orchid Rd)		2	110.00	0.10		22.02		
	1st Cross Rd sai orchid Rd		2	110.10	0.10		16.80		
	1st Main Sai Orchid Rd		2	84.00	0.10		112.54	454.74	51176.44
		Approved Amount			454.74				
18	Supply and Installtion of **Moulded Shank Raised Pavement Markers** made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 – DO III Dt 11.06. 997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500								
	Asphalt Rdoad	Cum					40.00		
	2nd Main Sai Orchid Rd		2	20.00			22.00		
	3rd Cross Rd		2	11.00			30.00		
	2nd Cross Rd (from 1st main sai orchid Rd)		2	15.00			24.00		
	1st Cross Rd sai orchid Rd		2	12.00			116.00	357.22	41437.52
		Approved Amount			357.22				
				EIRL					
E1	Providing and fixing **RCC precast cover slab of 250mm thick** for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and								
	For Culvert Slabs	Sqm					23.17		
			3	6.50	1.20		23.17	5418.00	125525.05
		Data Rate			5418.00				
E2	Cement concrete pavement Construction of **un-reinforced plain cement concrete pavement,** Thickness as per design, over a prepared sub base with 53 grade cement or any other type as per clause 1501.2.2 M30 (Grade) coarse and fine aggregate conforming to IS: 383 maximum size of coarse aggregate not exceeding 25mm , mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weight batcher as per approved mix design laid in approved fixed of 125 micron thick polythene film, wedges steel plates including levelling the form work as per drawing) Spreading the concrete with shovels rackers compacted using needle screed and plate vibrator and finished in a continuous operation including provision of contruction joints primer joint sealant curring of concrete slabs for 14 days and wateri finishing to lines and grade as per drawing and techincal specification clause 1501 with all lead lifts loading & unloading charges cost and conveyance of all materials (P.No-								
	CC Road								
	1st A Cross Rd		1	38.00	4.45	0.15	25.44		

1st B Cross Rd		1	36.00	4.71	0.15	25.50		
						50.94	5210.96	265458.08
Basic Rate	4916.00							
Area Weightage 6%	294.96							
Sub Total	5210.96							
						Sub Total 1 Rs.		17066762.97

Assistant Engineer
Ward 03
BBMP Bangalore

Assistant Executive Engineer
Yelahanka North Sub Division
BBMP Bangalore-106

Executive Engineer
Yelahanka Division
BBMP Bangalore

Technical Sanction
Accorded For Rs. 1,70,66,762.97/-
A/C P-3749
Head of A/C
CER NO 155/62/21 Dtd 22/09/2021